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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,646	11/28/2000	Alan H. Gnauck	2000-0515A	4568

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EXAMINER

NGO, HUNG NHAT

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 11/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/722,646

Applicant(s)

GNAUCK ET AL.

Examiner

Hung N Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-5, 8-12 and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito (JP405153952).

saito discloses a method for receiving an optical double sideband signal over an optical fiber system, comprising the steps of; splitting the received optical double sideband signal into an upper sideband signal and a lower sideband signal (see filter 1 in Fig. 2); photodetecting the upper sideband (see detector 2 in Fig. 2); photodetecting the lower sideband (see detector 3 in Fig. 2); combining the photodetected upper sideband signal with said photodetected lower sideband signal (see combiner 6 in Fig. 2). The method further comprising the steps of equalizing the photodetected upper sideband signal (see equalizer 4); and equalizing the photodetected lower sideband signal (see equalizer 5). The steps of photodetecting and equalizing of the upper sideband and the steps of photodetecting and equalizing the lower sideband are performed serially (see Fig. 2). The combining step is a summation (see the combiner 6).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 6, 7, 13 and 20-22, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (JP 05153052).

5. It is well known in the art to compensate the dispersion of the optical signal obtained desired length of the optical pulse. Therefore, it would have been obvious to one ordinary skill in the art to provide optical dispersion compensation in saito optical apparatus to prevent undesired optical pulse signal. It is well known in the art to use AM signal to increase capacity of information being carried in the signal. It is well known in the art to use 3dB coupler to evenly split the optical signal and reduce

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optical loss. Therefore, it would be obvious to use 3dB coupler to evenly divide the double band signal and reduce optical loss in Saito apparatus.

6. Fiber Bragg grating and thin film filter are very commonly used as band filter (reference will be provided when it is requested by the applicant). Applicant also admitted in claim 20 and 21 that more than one type of filter can be used. Therefore, it would be obvious design choices.


7. Claims 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (JP05153052) in view of Kim et al (5,739,866) or Taylor (6,359,716).

8. It is well known in the art to provide a filter on each branch to obtain different frequency band on each branch at the same time simplified the design of the optical circuit. Therefore, it would be obvious to provide a filter on each branch in Saito apparatus to obtain upper sideband filter in one branch and lower sideband filter in other branch with the most simplify optical circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung N Ngo whose telephone number is (703) 308-0297. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703-305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Hung N Ngo
Primary Examiner
Art Unit 2633

hn